

WHAT IS CLAIMED IS:

1. A multi-format decoder board for decoding audiovisual data streams in a plurality of encoding formats for use by one or more audiovisual output devices, said decoder board comprising:
 - an interface stage for interfacing with a digital data network;
 - a multi-format decoder for decoding at least two different encoding formats for an audiovisual data stream;
 - a microcontroller for controlling said interface stage and said decoder; and
 - connections for connecting said decoder board to one or more audiovisual output devices.
2. The decoder board of claim 1, wherein said interface stage is an optical interface stage for interfacing said decoder board with a fiber optic network.
3. The decoder board of claim 1, wherein said connections for one or more audiovisual output devices comprise a headphone jack.
4. The decoder board of claim 1, wherein said connections for one or more audiovisual output devices comprise a connection for a display device.
5. The decoder board of claim 1, further comprising menu images controlled by the microcontroller and displayed on the audiovisual output device, and a touch-screen connected to said decoder board, said touch-screen used to select menu items and provide user input to said microcontroller which interprets the user input.
6. The decoder board of claim 5, wherein said decoder outputs a decoded video signal to said audiovisual output device.

7. The decoder board of claim 1, wherein said decoder outputs a decoded audio signal to said interface stage for transmission over said digital network.

8. The decoder board of claim 1, wherein said decoder decodes MPEG-1, MPEG-2, MPEG-4, Motion JPEG, and VCD and provides for required content protection.

9. The decoder board of claim 1, wherein said decoder decodes a data stream output by any of an audio CD player, a DVD player, VCD player or a wireless receiver.

10. The decoder board of claim 1, wherein said decoder decodes an MP3 data stream.

11. A multi-media system in a vehicle comprising:
a digital data network installed in a vehicle;
at least one storage, playback or receiver device on-board said vehicle for providing an encoded audiovisual data stream to said network;
at least one audiovisual output device connected to said network; and
a multi-format decoder board for decoding audiovisual data streams in a plurality of encoding formats, said decoder board decoding said audiovisual data stream for use by said at least one audiovisual output device;
wherein said decoder board comprises:
an interface stage for interfacing with a digital data network;
a multi-format decoder for decoding at least two different encoding formats for an audiovisual data stream;
a microcontroller for controlling said interface stage and said decoder; and
connections for connecting said decoder board to one or more audiovisual output devices.

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12. The system of claim 11, wherein said digital data network is a fiber optic network and said interface stage is an optical interface stage for interfacing said decoder board with said fiber optic network.

13. The system of claim 11, wherein said at least one audiovisual output device comprises a set of headphones and said connections for one or more audiovisual output devices comprise a headphone jack.

14. The system of claim 11, wherein said at least one audiovisual output device comprises a display device and said connections for one or more audiovisual output devices comprise a connection for said display device.

15. The system of claim 11, further comprising menu images controlled by the microcontroller and displayed on the audiovisual output device, and a touch-screen connected to said decoder board, said touch-screen used to select menu items and provide user input to said microcontroller which interprets the user input.

16. The system of claim 15, wherein said decoder outputs a decoded video signal to the display device.

17. The system of claim 11, wherein said decoder outputs a decoded audio signal to said interface stage for transmission over said digital network.

18. The system of claim 11, wherein said decoder decodes MPEG-1, MPEG-2, MPEG-4, Motion JPEG, and VCD data streams and provides for required content protection.

19. The system of claim 11, wherein said decoder decodes a data stream output by any of an audio CD player, a DVD player, a VCD player or a wireless receiver.

20. The system of claim 11, wherein said decoder decodes an MP3 data stream.

21. The system of claim 11, further comprising a hard drive connected to said network.

22. The system of claim 11, further comprising an electronic memory unit connected to said network.

23. The system of claim 11, further comprising a floppy disk drive connected to said network.

24. The system of claim 11, further comprising an analog antenna and tuner connected to said network.

25. The system of claim 11, further comprising a satellite antenna connected to said network.

26. The system of claim 11, further comprising a DVD player connected to said network.

27. The system of claim 11, further comprising an audio player connected to said network.

28. The system of claim 11, further comprising a VCD or CD-ROM drive connected to said network.

29. A method of handling a digital data stream carrying data encoded in a plurality of different encoding formats, said method comprising processing said digital data stream through a decoder board that comprises a multi-format decoder for decoding

at least two different encoding formats for audiovisual data and output a resulting decoded audiovisual signal to one or more audiovisual output devices.

30. The method of claim 29, further comprising interfacing said decoder board to a digital data network with an interface stage, said digital data stream coming to said decoder board via said digital data network.

31. The method of claim 30, wherein said digital data stream is transmitted over said digital data network optically.

32. The method of claim 29, further comprising outputting a decoded audio signal to a pair of headphones.

33. The method of claim 29, further comprising outputting a decoded audiovisual signal to a display device.

34. The method of claim 29, further comprising controlling said decoder board with a display device connected to said board, said display device displaying a user interface.

35. The method of claim 34, further comprising displaying a decoded video signal from said decoder with said display device.

36. A multi-format decoder board for decoding audiovisual data streams in a plurality of encoding formats for use by one or more audiovisual output devices, said decoder board comprising:

interface means for interfacing with a digital data network;

multi-format decoder means for decoding at least two different encoding formats for an audiovisual data stream;

controller means for controlling said interface stage and said decoder; and

output means for connecting said decoder board to one or more audiovisual output devices.

37. The decoder board of claim 36, wherein said interface stage is an optical interface stage for interfacing said decoder board with a fiber optic network.

38. The decoder board of claim 36, further comprising user input means connected to said board for providing user input to said controller means.

39. The decoder board of claim 36, wherein said decoder decodes MPEG-1, MPEG-2, MPEG-4, Motion JPEG, and VCD data streams and provides for required content protection.

40. The decoder board of claim 36, wherein said decoder decodes a data stream output by any of an audio CD player, a DVD player, a VCD player or a wireless receiver.

41. The decoder board of claim 36, wherein said decoder decodes an MP3 data stream.